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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,311	12/21/2001	Marco Di Benedetto	ANDIP006	8021

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EXAMINER	
BILGRAMI, ASGHAR H	

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/026,311	BENEDETTO ET AL.	
	Examiner	Art Unit	
	Asghar Bilgrami	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

2. Claim 13 rejected under 35 U.S.C. 102(b) as being anticipated by Chong (U.S. 6,070,251).

3. As per claim 13 Chong disclosed a fibre channel switch, comprising: a fibre channel line card coupled to an external fibre channel network entity (col.1, lines 49-67 & col.2, lines 1-38); a first supervisor coupled to the fibre channel line card through a backplane; a second supervisor coupled to the first supervisor; wherein the first supervisor is configured to identify a message from the external fibre channel network entity that alters the state of the first supervisor and send an acknowledgement to the external fibre channel network entity before the message is passed to the second supervisor (col.3, lines 1-67 & col.4, lines 1-42).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1- 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chong (U.S. 6,070,251) and Lubbers et al (U.S. 6,931,487 B2).

6. As per claims 1, 25, 26 & 27 Chong (U.S. 6,070,251) disclosed a method for implementing high availability in a fibre channel switch in a storage area network, the method comprising (col.1, lines 49-67 & col.2, lines 1-38): identifying a message at a first application running on an active supervisor in a fibre channel switch; determining high availability characteristics associated with the message, wherein high availability characteristics provide information for synchronizing a second application running on a standby supervisor in the fibre channel switch with the first application; providing the message to the second application running on the standby supervisor when high availability characteristics indicate that the message should be mirrored and not providing the message to the second application running on the standby supervisor when high availability characteristics does not indicate that the message should be mirrored. (col.3, lines 1-67 & col.4, lines 1-42). However Chong did not explicitly disclose determining high availability characteristics associated with the message
In the same field of endeavor Lubbers disclosed determining high availability characteristics associated with the message (col.5, lines 6-15 & col.6, lines 39-51).
It would have been obvious to one in the ordinary skill in the art at the time the invention was made to have incorporated a high availability characteristics in a message as disclosed by Lubbers in the method of implementing high availability in a fibre channel switch as disclosed by Chong in order to make the fibre channel switch more efficient resulting in mass storage system that can provide effective redundant disk controller capability.

7. As per claims 2, 3, 21, 24, 28, 29, 36 & 37 Chong disclosed the method of claim 1, further comprising determining subscriber characteristics associated with the message, wherein subscriber characteristic provide information for determining which applications running on the active supervisor have subscribed to receive the message (Chong, col.3, lines 31-67)

8. As per claims 4, 20 & 30 Chong disclosed the fibre channel switch of claim 19, wherein the message is copied into the first pending transaction buffer and a reference to the message is provided to a first plurality of applications running on the first supervisor (Chong, col.3, lines 31-67).

9. As per claims 5, 19 & 31 Chong disclosed the method of claim 4, wherein providing the message to the plurality of subscribers comprises providing the subscribers with a reference to the message in the first supervisor shared buffer (Chong, col.3, lines 31-67).

10. As per claims 6 & 32 Chong disclosed the method of claim 3, further comprising providing the message to a plurality of subscribers running on the standby supervisor (Chong, col.4, lines 52-67 & col.5, lines 1-10)

11. As per claims 7 & 33 Chong disclosed the method of claim 6, wherein providing the message to the plurality of subscribers comprising copying the message to a second supervisor shared buffer (Chong, col.3, lines 31-67).

12. As per claims 8 & 34 Chong disclosed the method of claim 7, wherein the message is copied to the second supervisor from the first supervisor asynchronously (Chong, col.3, lines 31-67).

13. As per claims 9 & 35 Chong disclosed the method of claim 8, wherein an acknowledgement to the message is sent by the first application before the message is copied to the second supervisor (Chong, col.3, lines 31-67).

14. As per claims 10, 22 & 23 Chong disclosed the fibre channel switch of claim 22, wherein the message is copied into the second pending transaction buffer and a reference to the message is provided to a second plurality of applications running on the second supervisor (Chong, col.3, lines 31-67).

15. As per claim 11 Chong disclosed the method of claim 1, wherein high availability characteristics relate to mirroring, persistence, and logging (Chong, col.3, lines 31-67).

16. As per claim 12 Chong disclosed the method of claim 11, further comprising maintaining a first supervisor transaction log if high availability characteristics indicate that the message should be logged (Chong, col.3, lines 31-67).

17. As per claim 14 Chong disclosed the fibre channel switch of claim 13, wherein the first supervisor is further configured to send an advance notification associated with the message to the second supervisor before passing the message to the second supervisor (Chong, col.3, lines 31-67).

18. As per claim 15 Chong disclosed the fibre channel switch of claim 14, wherein the advance notification is a sequence number associated with the message (Chong, col.3, lines 31-67).

19. As per claim 16 Chong disclosed the fibre channel switch of claim 15, wherein the advance notification is transmitted synchronously before an acknowledgement is sent to the external fibre channel network entity (Chong, col.3, lines 31-67).

20. As per claim 17 Chong disclosed the fibre channel switch of claim 16, wherein the message is transmitted asynchronously after the message is acknowledged (Chong, col.3, lines 31-67).

21. As per claim 18 Chong disclosed the fibre channel switch of claim 17, wherein the second supervisor is configured to use the advance notification to verify the consistency of its internal state (Chong, col.3, lines 31-67).

Response to Arguments

Applicant's arguments with respect to claim 1-37 have been considered but are moot in view of the new ground(s) of rejection.

1. Applicant argued that Chong does not appear to teach high availability characteristics associated with the message.

2. As to applicant argument please see examiners rejection on line 6 of this office action.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asghar Bilgrami whose telephone number is 571-272-3907. The examiner can normally be reached on M-F, 8:00-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Asghar Bilgrami
Examiner
Art Unit 2143

AB

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